ActivPower IRX

HUMAN KNOWLEDGE BASE • INGREDIENT SCIENCE

Black Pepper for Human Digestive Wellness & Nutrient Utilization

A traditional culinary spice whose active compound, piperine, is studied for digestive support and nutrient bioavailability.

IRx-ZEUS® COGNEX® AYURUB™ Piper nigrum · Piperine

What Is Black Pepper?

Black pepper (*Piper nigrum*) is one of the world's most widely used culinary spices. Its primary naturally occurring active compound, **piperine**, has been studied for its role in digestion, nutrient absorption, antioxidant activity, and general wellness. Black pepper contains piperine, essential oils, alkaloids, and polyphenols, and is best viewed as a supportive dietary ingredient. It is included in **IRx-ZEUS®**, **COGNEX®**, and **AYURUB™** for humans.

Nutrient Bioavailability Support

One of the most extensively studied properties of piperine is its ability to enhance the bioavailability of certain dietary compounds. A landmark human study demonstrated that piperine significantly increased blood levels of curcumin when the two were consumed together (Shoba et al., 1998). This provides a scientific rationale for including black pepper in formulations where efficient nutrient utilization is a consideration — though enhanced bioavailability does not imply treatment of any disease or guaranteed effects from every nutrient.

Digestive Wellness Support

Research suggests that piperine may support digestion by influencing digestive-enzyme activity and nutrient utilization, including stimulation of pancreatic digestive enzymes. These findings support the traditional use of black pepper as part of a balanced dietary approach to digestive wellness.

Antioxidant & Cellular Wellness

Black pepper contains naturally occurring antioxidant polyphenols that may help support normal cellular function against the oxidative stress produced during everyday metabolism. Across the diet, black pepper may support:

- Digestive wellness and nutrient utilization
- Antioxidant support

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- Healthy cellular function
- General vitality and wellness

Emerging Gut-Microbiome Research

Early research suggests piperine may interact with the gut environment and microbial communities, potentially influencing aspects of digestive wellness. This field remains in its early stages, and additional human clinical studies are needed.

Safety & Responsible Use

Black pepper has a long history of safe culinary use. Because concentrated piperine may influence the absorption or metabolism of certain medications and nutrients, individuals who are pregnant, nursing, taking prescription medications, or managing medical conditions should consult a qualified healthcare professional before using supplements containing black pepper or piperine.

The ActivPower Perspective

ActivPower includes black pepper powder in IRx-ZEUS®, COGNEX®, and AYURUB™ as part of a comprehensive nutritional strategy to support digestive wellness, nutrient utilization, antioxidant support, and everyday vitality.

FEATURED IN

IRx-ZEUS® · COGNEX® & AYURUB™

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Selected References — Human Literature

1. Srinivasan K. Black pepper and its pungent principle-piperine: a review of diverse physiological effects. *Crit Rev Food Sci Nutr.* 2007;47(8):735–748.
2. Shoba G, Joy D, Joseph T, Majeed M, Rajendran R, Srinivas PS. Influence of piperine on the pharmacokinetics of curcumin in animals and human volunteers. *Planta Med.* 1998;64(4):353–356.
3. Salehi B, et al. Bioactive properties, bioavailability profiles, and clinical evidence of pepper-derived compounds. *Molecules.* 2023;28(18):6569.
4. Ahmad N, Fazal H, Abbasi BH, Farooq S, Ali M, Khan MA. Phytochemistry and therapeutic potential of black pepper (Piper nigrum). *Clin Phytoscience.* 2021;7:52.
5. Piperine and nutrient bioavailability: current scientific perspectives. *Nutr Rev Suppl.* 2025;84(Suppl 1):81–95.

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DISCLAIMER

This article is provided solely for educational and informational purposes and summarizes selected scientific literature concerning black pepper (Piper nigrum) as a nutritional ingredient in humans. Nothing herein is intended to diagnose, treat, cure, mitigate, or prevent any disease, injury, arthritis, inflammatory disorder, or medical condition in humans.

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